Versa™ Center – Versa™ Tray
Motor Control Center
Power Factor Improvement

Versatex INDUSTRIES

PRODUCT DATA SHEET: VC-VT
Effective: 01-01-92
Supercedes: 05-01-89
Subject to change without notice.

VERSATEX POWER FACTOR IMPROVEMENT CAPACITOR ASSEMBLIES provide electrical systems with relief from utility company power factor penalties, and also improve system operating efficiency. Featuring industrial grade capacitor cells and components, they meet the highest standards for quality and reliability.

A Metallized Dielectric System furnishes the capacitor cells with the toughness today's harsh electrical environments require. *Electrodes are aluminum foil, and a kraft paper substrate with aluminum metallized on both sides.* These are combined with polypropylene film to give the system its superior durability and outstanding performance capabilities.

Self-clearing characteristic is another benefit the system offers. Should a fault occur, the material around the fault is vaporized. This process clears the fault and allows the capacitor cell to continue in service without an appreciable loss of KVAR.

An Environmentally-Safe Impregnant, totally free of PCB, further enhances the dielectric strength of the system. This gives Versatex capacitor cells a higher voltage withstand capability, especially when compared to capacitor cells with "dry" systems or metallized polypropylene film dielectrics.

A Pressure Activated Disconnect delivers built-in protection against capacitor cell case rupture. The PAD mechanism automatically disconnects the cell from all three phases of the power circuit at end-of-life without influencing the operation of the other cells in the capacitor assembly.

Broad Performance Ranges allow capacitor cells to operate in ambient temperatures of -40°C to 50°C (-40°F to 122°F), at 110 percent of their rated voltage, and at 135 percent of their rated KVAR resulting from frequency variation, or overloads generated by overvoltages and/or harmonics.

Safe Handling Features include discharge resistors inside each cell to drop residual voltage to 50 Volts or less within one minute after power is disconnected.

VERSA CENTER: One three-phase, 60-Hertz capacitor assembly, mounted on one open tray, designed specifically for use as a **UL recognized** component in motor control centers.

VERSA CENTER PAK: Two or more three-phase, 60-Hertz electrically independent capacitor assemblies, mounted on one open tray, designed specifically for use as a **UL recognized** component in motor control centers.

Each Versa Center Tray occupies one 12 inch vertical unit space in a motor control center. They are available for motor control centers manufactured by:

Allen-Bradley	Klockner-Moeller
Cutler-Hammer	Siemens
Furnas Electric	Square D
General Electric	Westinghouse
Joslyn Clark	

Versa Center

VERSA TRAY: One three-phase, 60-Hertz capacitor assembly, mounted on one open tray, designed specifically for use as a component in a motor control panel.

VERSA TRAY PAK: Two or more three-phase, 60-Hertz electrically independent capacitor assemblies, mounted on one open tray, designed specifically for use as a component in a motor control panel.

Versa Tray and Versa Tray Pak assemblies are **UL recognized** components.

P.O. Box 354 ■ **Brighton, Michigan 48116** ■ **(313) 229-5751**

ORDERING GUIDE

PRODUCT NUMBERS for **Versa Center** and **Versa Center Pak** or **Versa Tray** and **Versa Tray Pak,** are easily developed by showing:

STYLE/SERIES/KVAR/FEATURES

STYLE Code

Versa Center
- Allen Bradley ..... **ABVC**
- Cutler-Hammer ..... **CHVC**
- Furnas Electric ..... **FNVC**
- General Electric ..... **GEVC**
- Joslyn Clark ..... **JCVC**
- Klockner-Moeller ..... **KMVC**
- Siemens ..... **SMVC**
- Square D ..... **SDVC**
- Westinghouse ..... **WEVC**

Versa Center Pak ..... ****VCP**

** Insert two letter company code using same first two letters shown in Versa Center code above.

Versa Tray ..... **VT**

Versa Tray Pak ..... **VTP**

SERIES

480VAC, 3-phase, 60Hz **43M**

240VAC, 3-phase, 60Hz **23M**

For 600VAC, and uncommon voltages and frequencies, contact Versatex Industries.

KVAR

For Versa Center and Versa Tray, show KVAR rating of the assembly.

For Versa Center Pak and Versa Tray Pak, group by KVAR rating. For each group, show the quantity with the same KVAR rating. Insert a dash - and show the KVAR rating. Separate data for each group with commas.

Assembly KVAR Ratings

SERIES 43M (480VAC, 3-Phase, 60Hz)

KVAR	KVAR	KVAR	KVAR	KVAR
2	7½	13	20	35
2½	8	13½	22	37½
3	9	14	22½	40
4	10	15	25	42½
5	11	16	27	45
6	12	17½	30	47½
7	12½	18	32½	50

SERIES 23M (240VAC, 3-Phase, 60Hz)

KVAR	KVAR	KVAR	KVAR	KVAR
2	6	10	13½	18
2½	7	11	14	20
3	7½	12	15	22
4	8	12½	16	22½
5	9	13	17½	25

FEATURES

If required, current limiting protective fusing, in addition to PAD protection, can be provided as an option on Versa Center and Versa Tray assemblies.
Blown fuse indicating lights are also available.

Code

- Three-phase fusing **F3**
- Three-phase rejection fusing **RF3**
- Three-phase fusing and lights **AF3**
- Three-phase rejection fusing and lights **ARF3**

BUILDING A PRODUCT NUMBER

VERSA CENTER PAK: A unit is required for an Allen-Bradley Motor Control Center **(ABVCP).** The MCC handles three motors in a 480VAC, 3-phase, 60Hz **(43M)** system. Two motors require 5 KVAR **(2-5),** one requires 15 KVAR **(1-15).** Three-phase fusing, using rejection style fuses, plus lights **(ARF3)** is also a requirement.

Arranging this data in proper sequence results in a Product Number that reads:

ABVCP/43M/2-5, 1-15/ARF3.

PRICING INFORMATION

Once Product Numbers have been developed, contact your Versatex Sales Representative, or the Customer Service Department at the factory, to obtain prices.

INSTALLATION NOTE: Versatex capacitor assemblies are designed to be installed on the load side of the motor starter protective device. If installed on the line side of the motor starter, the assembly must be connected to a fusible disconnect or circuit breaker.

PHYSICAL CHARACTERISTICS

Versa™ Center and Versa™ Center Pak

Tray Capacity and KVAR Range Data

Tray Type	Max. Cells per Tray*	KVAR Range per Tray	
		Series 43M	Series 23M
Allen-Bradley	3	2 - 50	2 - 25
Cutler Hammer	3	2 - 50	2 - 25
Furnas Electric	3	2 - 50	2 - 25
General Electric	3	2 - 20**	2 - 10**
Joslyn Clark	3	2 - 50	2 - 25
Klockner-Moeller	3	2 - 50	2 - 25
Siemens	3	2 - 32½	2 - 17½
Square D	3	2 - 50	2 - 25
Westinghouse	3	2 - 50	2 - 25

*Cells per tray may decrease as number of optional features required increases.

**Single trays with higher KVAR values are available. They occupy an 18 inch vertical space unit. KVAR Range per Tray for 43M Series is 22 - 50. KVAR Range per Tray for 23M Series is 11 - 25.

For KVAR values larger than those shown above, two or more trays are required.

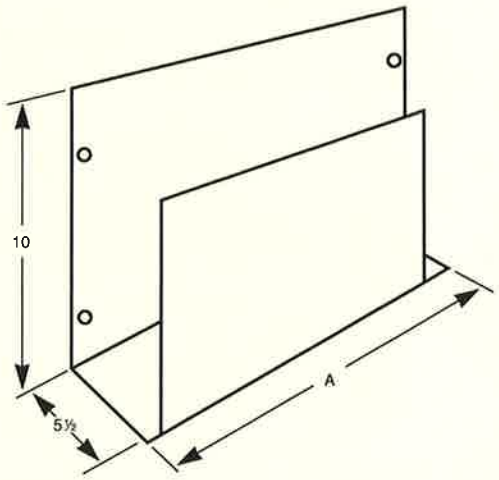
Versa™ Tray and Versa™ Tray Pak

Dimensional and Weight Data

VERSA TRAY – SERIES 43M			
KVAR Range	No. of Cells	Length Dim. A (in.)	Shipping Weight (lbs.)
2 - 16	1	10	8 - 13
17½ - 32½	2	10	15 - 19
35 - 50	3	14	25 - 28

VERSA TRAY – SERIES 23M			
KVAR Range	No. of Cells	Length Dim. A (in.)	Shipping Weight (lbs.)
2 - 9	1	10	8 - 13
10 - 18	2	10	13 - 16
20 - 25	3	14	18 - 20

To determine dimensional and weight data for VERSA TRAY units, find where in the "KVAR Range" chart the KVAR specified for the unit falls and trace across to "Dim. A" and "Shipping Weight" columns.



For data on other KVAR ratings and/or **VERSA TRAY PAK** units, contact Versatex Industries.

Versatex reserves the right to select the combination of cells for each tray assembly and the size of the trays that make up each Versa Tray and Versa Tray Pak unit.

DELIVERY: The Versatex QuickShip 10 program ships your order within 10 working days from date of order.

TERMS OF SALE: Net due within 30 days with approved credit, FOB, Brighton, Michigan.

EXPERIENCE

Power factor improvement is our only business. In fact, solving power factor problems has been the primary focus at Versatex Industries since 1974. As a result, we have the background and experience it takes to satisfy the toughest application requirements – even those involving harmonics.

SERVICE

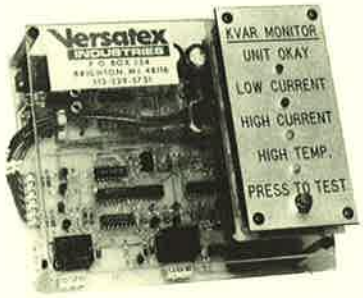
Helpful service is another advantage. Our sales representatives and factory sales engineers thrive on developing cost-effective answers to power factor improvement needs. They are eager and capable problem-solvers. Give them a call whenever you require assistance.

PRODUCT LINE DIVERSITY

Our power factor improvement capacitor assemblies provide a broad range of application options. In addition to the assemblies described in this Product Data Sheet, Versatex also offers the following power factor improvement equipment:

NON-AUTOMATIC

When requirements call for power factor improvement from a single location on a distribution system, **Versa Rack** capacitor assemblies are the answer. KVAR ratings range from 100 to 600.



The **Versatex KVAR Monitor,** with its operating status and alarm indicators, is a standard feature on all models.

Complete details and information on other benefits are provided in the **Versa Rack** *Product Data Sheet.*

AUTOMATIC

K*Pak Control Centers eliminate power factor penalties by supplying required KVAR while automatically keeping power factor within a specified range.

The **Versatex Microcontroller** is the key. It combines precise power factor measurement with operating status indicators and diagnostic functions. Performance is easily monitored and potential problems can be detected before they become serious concerns.

K*Pak models are available with KVAR values range from 100 through 1200. For additional details, see the **K*Pak** *Product Data Sheet.*

HARMONIC TRAPS AND HARMONIC POWER FILTERS

Versatex Harmonic Traps and Harmonic Power Filters are the answer to power factor improvement in harmonic-rich environments. The following styles are available:

HTVM Harmonic Traps for at-the-load applications with KVAR requirements from 10 through 100.

HVR Non-Automatic Harmonic Power Filters for applications with KVAR requirements from 100 through 320.

H*Pak Automatic Harmonic Power Filters for automatic control applications with KVAR requirements from 100 through 960.

All harmonic traps and harmonic power filters are engineered to satisfy the specific requirements of the system on which they are to be installed. For additional information, contact your Versatex Sales Representative.

Versatex
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